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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|----------------------------|-----------------------------------|----------------------|---------------------|---------------------------------------|
| 10/508,451 | 09/21/2004 | Marcel Breeuwer | NL 020207 | 3897 |
| | 7590 12/20/200 LLECTUAL PROPER | EXAM | EXAMINER | |
| P.O. BOX 3001 | | BHARADWAJ, KALPANA | | |
| BRIARCLIFF MANOR, NY 10510 | | | ART UNIT | PAPER NUMBER |
| | | | 2129 | |
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| | | | MAIL DATE | DELIVERY MODE |
| | | | 12/20/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| • | | Application | n No. | Applicant(s) | | | |
|---|--|---|--|---|--|--|--|
| Office Action Summary | | 10/508,45 | 1 | BREEUWER, MARCEL | | | |
| | | Examiner | | Art Unit | | | |
| | | Bharadwaj | Kalpana | 2129 | | | |
| | The MAILING DATE of this communica | tion appears on the | cover sheet with the co | orrespondence address | | | |
| Period for Reply | | | | | | | |
| WHIC - Exter after - If NO - Failu Any r | CRTENED STATUTORY PERIOD FOR HEVER IS LONGER, FROM THE MAIL asions of time may be available under the provisions of 3 SIX (6) MONTHS from the mailing date of this communic period for reply is specified above, the maximum statutore to reply within the set or extended period for reply will, eply received by the Office later than three months after the patent term adjustment. See 37 CFR 1.704(b). | ING DATE OF TH 7 CFR 1.136(a). In no eve cation. Try period will apply and will by statute, cause the appli | IS COMMUNICATION nt, however, may a reply be tim d expire SIX (6) MONTHS from to cation to become ABANDONED | l. the mailing date of this communication. (35 U.S.C. § 133). | | | |
| Status | | | | | | | |
| 1) 🏹 | Responsive to communication(s) filed of | on 21 September 2 | 004. | | | | |
| · | This action is FINAL . 2b)⊠ This action is non-final. | | | | | | |
| 3) | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is | | | | | | |
| | closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. | | | | | | |
| Disposition of Claims | | | | | | | |
| 4)⊠ | 4)⊠ Claim(s) <u>1-12</u> is/are pending in the application. | | | | | | |
| | 4a) Of the above claim(s) is/are withdrawn from consideration. | | | | | | |
| 5) 🗌 |)☐ Claim(s) is/are allowed. | | | | | | |
| <u> </u> | Claim(s) <u>1-12</u> is/are rejected. | | | | | | |
| • | Claim(s) is/are objected to. | | | | | | |
| 8) Claim(s) are subject to restriction and/or election requirement. | | | | | | | |
| Applicati | on Papers | | | | | | |
| 9) 🔲 | The specification is objected to by the E | xaminer. | | | | | |
| 10) | The drawing(s) filed on is/are: a |)∏ accepted or b) | objected to by the E | Examiner. | | | |
| • | Applicant may not request that any objection | | | | | | |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). | | | | | | | |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. | | | | | | | |
| Priority under 35 U.S.C. § 119 | | | | | | | |
| 12)⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a)⊠ All b)□ Some * c)□ None of: | | | | | | | |
| | 1. Certified copies of the priority documents have been received. | | | | | | |
| | 2. Certified copies of the priority documents have been received in Application No | | | | | | |
| | 3. Copies of the certified copies of the priority documents have been received in this National Stage | | | | | | |
| application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. | | | | | | | |
| See the attached detailed Office action for a list of the certified copies not received. | | | | | | | |
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| Atta = h | · | | | • | | | |
| Attachment(s) 1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) | | | | | | | |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) | | | | | | | |
| 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 5) Notice of Informal Patent Application 6) Other: | | | | | | | |

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DETAILED ACTION

Status of Claims

1. Claims 1-12 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 3. Claims 1-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Stadler (USPN 2002/0016548, referred to as **Stadler**).

Claim 1, 11, 12:

Stadler teaches a method of analyzing a quantity having temporal and spatial variations, wherein a multidimensional output data array is formed (**Stadler**, ¶ 0063: multi-dimensional "spatial vector") the multidimensional output data array comprises array positions arranged along at least a first data-axis and a second data-axis (**Stadler**, ¶ 0065: three axis EGM signals), values of the quantity are entered in the

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multidimensional output data array, such that values of the quantity at substantially the same instant are entered at respective positions in the multidimensional output data array at equal positions along the first data-axis (**Stadler**, ¶ 0083; defining a set of sampled time points; EN: sampled time points are values at particular instants of time) and values of the quantity at substantially the same spatial position are entered at respective positions in the multidimensional output data array at equal positions along the second data-axis (**Stadler**, ¶ 0063: spatial vectors).

Claim 2:

Stadler teaches a method as claimed in claim 1, wherein values of the quantity are acquired for respective temporal instants and for respective spatial sections and values of the quantity for individual spatial sections are entered at respective positions in the multidimensional output data array at equal positions along the second data-axis (Stadler, ¶ 0063: processing spatial vectors; EN: processing involves entering positions on the axis).

Claim 3:

Stadler teaches a method as claimed in claim 1, wherein values of the quantity are acquired for respective time intervals (Stadler, ¶ Data related to ... generated in real time) and for respective spatial positions and values of the quantity for individual time interval are entered at respective positions in the multidimensional output data array at equal positions along the first data-axis (Stadler, ¶ 0073: manipulating the data values).

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Claim 4:

Stadler teaches a method as claimed in claim 1, wherein values of the quantity for successive time intervals are entered at adjacent positions (**Stadler**, ¶ 0005: PQRST sequence) in the multidimensional output data array and values of the quantity for adjacent spatial sections are entered at adjacent positions in the multidimensional output data array (**Stadler**, ¶ 0005: successive PQRST complexes).

Claim 5:

Stadler teaches a method as claimed in claim 4, wherein values of the quantity for radially contiguous spatial sections (**Stadler**, ¶ 0139: radians per cardiac cycle) are entered at contiguous positions in the multidimensional output data array (**Stadler**, ¶ 0139: filter characteristics are tuned from empirical data).

Claim 6:

Stadler teaches a method as claimed in claim 1, wherein the values of the quantity are derived from a series of images (**Stadler**, ¶ 0002: monitoring electrocardiogram).

Claim 7:

Stadler teaches a method as claimed in claim 6, wherein values of the quantity at respective instants are derived from respective images in said series of images

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(**Stadler**, ¶ 0005: waveform characterized by a periodic PQRST electrical activation sequence).

Claim 8:

Stadler teaches a method as claimed in claim 7, wherein respective positions in the multidimensional output data array are linked to respective spatial sections in respective images of the series (**Stadler**, ¶ 0070: data related to detection ... for later uplink telemetry transmission and analysis).

Claim 9:

Stadler teaches a method as claimed in claim 8, wherein the multidimensional output data array is displayed, a position in the displayed multidimensional output data array is indicated and on the basis of the indicated position in the displayed multidimensional output data array the corresponding image of the series is displayed and the corresponding spatial section in the image is marked (**Stadler**, ¶ 0056: A display 59 would enable graphic and textual interface).

Claim 10:

Stadler teaches a method as claimed in claim 1, wherein the quantity pertains to perfusion of the myocardium (**Stadler**, ¶ 0007: ischemic myocardium).

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Examinations Considerations

- 4. Examiner's Notes (EN) are provided with the cited references to prior art to assist the applicant to better understand the nature of the prior art, application of such prior art and, as appropriate, to further indicate other prior art that maybe applied in other office actions. Such comments are entirely consistent with the intent and spirit of compact prosecution. However, and unless otherwise stated, the Examiner's Notes are not prior art but a link to prior art that one of ordinary skill in the art would find inherently appropriate.
- 5. Examiner has cited particular columns and line numbers (or paragraphs) in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the Applicant in preparing responses, to fully consider the references in their entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner. The entire reference is considered to provide disclosure relating to the claimed invention.

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Conclusion

- 6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
 - a. Prince, USPN 2001/0031037, cited for magnetic resonance imaging.
- 7. Claims 1-12 are rejected.

Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bharadwaj Kalpana whose telephone number is (571) 270-1641. The examiner can normally be reached on Monday-Friday 7:30am 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Vincent can be reached on (571) 272-3080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KB

Dec 14, 2007

SUPERVISORY PATENT EXAMINER